VOLUME LIII. FOR THE YEAR 1894.

70992

INDEX

AMERICAN AGRICULTURIST

FOR FARM·GARDEN·HOUSEHOLD

Including the numbers of the Monthly from January to September, inclusive, when the change was made to a Weekly.

VOLUME LIV.

Includes the Weekly from September 1 to December 29, 1894, inclusive.

NEW YORK:
PUBLISHED BY
ORANGE JUDD COMPANY,
52 & 54 LAFAYETTE PLACE.

CONTENTS OF VOLUME FIFTY-THREE.

☞ *Titles of articles illustrated by anagrams or engravings are followed by a (*). Articles referring to Horses, Cattle, Sheep, Swine, Poultry, Insects, Animal Ailments, Plants and Flowers, Weeds, Books, etc, are indexed under these Heads. Subjects treated in the Household Department, Boys and Girls, etc, are separately indexed.*

A

Accounts, Farm....169
Agricultural Development, Significant Phases of....190
Agriculture, Science a Necessity for, 370: Significant Changes in American, 18.
Alfalfa on the Great Plains....252

ANIMAL AILMENTS:

A Animals, Chronic Torpidity of Bowels of, 235. Fainting in, 283. Happiness for, 454, Sunstroke—Heat Stroke, 298—Bite of Enraged Animals, 408—Bloodlessness in Animals, 42—Breeding Animals, non, 166—Cats, Diarrhœa in, 288—Catarrh or Common Cold, 288—Cough Mixture, 408—Crick back—Jerk Back—Shivers, 352—Mange, 352—Fever in Domestic Animals, 234—Jaundice, 352—Physic for Animals, Appropriate, 403—Rye for Breeding Animals, 166—Spleen and Pancreas, Disease of the, 352—Spring Weakness, 288—Surgery in Small Operations, Painless, 288.
C Cattle, Abscess on Neck, 166—Blotches or Sores on Cows, 454—Bloody Urine in Cows 234—Blindness in Calves, 352—Colicky cows, 408—Difficult Breathing in Cows, 42—Dyspepsia in Calves, 234—Early Removal of Afterbirth, 235—Epilepsy in two Heifers, 454—Fardel Bound, 504—Feeding Cows during milking, 42—Fever in Cows, 454—Garget or Caked Bag, 234—Garget—Swollen Udder, 171—Inflammation of Liver, 352—Keeping Tuberculosis off the Farm, 359—Malaial Rheumatism, 288—Milk Fever—Parturient Fever, 352—Ox Warbles, 289—Physic, 454—Preventing Sickness in the Dairy 360—Red Water—Hematuria, 288—Remedy for Scours in, 454, Ringworms in, 166, Rheumatism in, 100; Scours in Calves, 234, 288—Shelter Cows in Calf, 166—Southern Fever, 353—Surfeit—Grass Feeding, 408—Swollen Udder of Cow, 454—Ticks Injuring Dairy Cows, 504—Thoose or Thusk, 352—Troublesome Calving, 100—Tuberculosis in, 100—Tuberculin—Test for Tuberculosis, 454—Varicose Veins, 166—Warbles—Sitfast, 408—Warts on Teats, 234—White Scours in Calves, 166.
D Dogs Distemper in Collie, 293; Poisoned with Paris Green, 100: Squinting, 100.
H Horses, Aconitin in Excess Hypodermically, 234—Back-Sprung Knee, 408—Blistering, 166—Bots, 166—Botsin, 166—Bruised Knees 234—Castration, Period for, 504—Cough in, 288; Chronic Cough in, 504—Chronic Cough of Colt, 454—Consumption—Tuberculosis in, 454—Cracked Heels—Scratches, 288—Defects in, 234—Distemper in Colts, 504—Elephantiasis—Big Leg, 42—Exostosis—Bony Tumors, 100—Glanders, 352—Harness Galls, 166—Hemorrhage—Bleeding from the Bowels, 408—Hen Lice on Colts, 100—Hidebound, 408—How to Manage a Yearling Stallion, 408—Impaired Digestion in, 352—Indigestion, 288—Indigestion of Colts, 352—Irritated Bladders of, 234—Lampas, 352, 454—Mud Fever—Erythema, 42—Open Fetlock Joint, 305—Partial Paralysis 504—Pink-eye in, 42—Pout-Evil—Fistula, 408—Pounding Ankles and Knees, 408—Psoriasis—Mollenders and Sollenders 454—Roaring in, 234—Shaky Fore Legs, 100;—Sleepy Staggers, 100—Sore Fetlocks in, 352; Spasmodic Colic in, 2 8—Springhalt—Stringhalt, 504—Sucking Colt Walking on His Toes, 504—Swollen Hock from a Kick, 288—Time for Castrating Colts, 504—Tongue Cut with Wire Bit, 100—Toothache in, 234—Weed—Lymphangitis, 408—Worms and Indigestion, 100—Worms 504.
M Mules—Dropsy, 504—Open AbscessUnder Jaw of, 289.
S Sheep, Delicate Feeding Ewes, 166—Diarrhœa in Flock of, 352—Ewes Bit en by Dogs, 166—Foot-rot of, 352—Having After Pains, 48—Heaving Pains in Ewes, 234—Influenza in, 166, Louping Ill in, 352: Nasal Ulcers in, 172—Sour Mouth in Lambs, 234.
Swine, Bad Appetite of Brood Sow, 234—Cancerous Tumors in Hogs, 288—Epilepsy or Fits in Pigs, 42—Foul skin in Hogs, 100—Hog Cholera, 288—Jaundice or Yellows in, 172—Mange in Pigs, 166—Partial Paralysis, 454—Piles in Pigs, 234—Ringworm, 288.
Animals, When to Breed, 42; When to Break Young, 504.
Astrakhan Skins Come From, Where....377
Attention, Systematic....259
Australian Pioneers....238

B

Bacteriology to Farmers, Importance of....131
Bags, Homemade Holder....* 63
Barn Floors....*425
Barnyard, A Covered....*481
Barn, A Model Dairy *(3),198—Cow Barn of the Future 66—Famous Barn of Palo Alto *(3), 5.
Basket, 34-35, 90-91, 155, 171-172, 222-223, 237, 283, 293-294, 346-347, 351, 402-403.
Bees Moisture in Bee Cellars, *73—Protection in the Spring *(2), 195—Smoke in Bee Management, 378—The largest House Apiary *(2) 135.
Beans as a Farm Crop, White Field, 260—Harvesting, 419.
Boys a Chance, Give the....20

BOYS AND GIRLS:

A Accidents, Some Happy....149
B Babies, Chinese....219
Birds, White-Eyed Vireo, *218
Blood, the Life of the Flesh, 342
C Case for Photographs....311
Children in Other Lands....31
E Education First....209
Entertainment Fancies....342
F Future, A Possible....28
G Game, A Novel....218
H Holder for Photographs, Who Can Make These?..* 30
L Lind, Jenny....149
Locust Storm....87
M Mill, Memories of an Old..* 29
P Places, How Named....219-491
Plants, Herb Robert....341
Poetry, That Afternoon Walk, 151—Who Loves Butter? 445.
Protoplasm....85
Puzzle, *31, 87, 279, 445, 492; American Historical, 219; Calendar, 359; Cottage *(2), 343; Farm, 151.
Snow and Ice....*(2) 30
State Names....87
States, How Named....342
Stones, Swimming....443
Story, A Brave Little Girl, 279—A Little Story of Long Ago, 445—A Spelling Match, 397—A Test of Manhood, 278—Almost a Smashup *150—Around Harper's Ferry, 445—At Grandpa's, 86—Aunt Saloma's Treasure Box, 219—Dick's Problem, 443—Donald's Will and Way, *442—Elsie's Louise, 31—Elvira's Boots, *216—Ethel's New Profession, 491—Gladys and Maggie, 343—Good Sleeper, 87—His Name or His Character, 346—How a Squirrel Helped Sell a Farm, 279—How Minnie Forgot, 87—How Olive conquered the Moonshine, 149—Lize, *148—Mammy Joe, 444—Nimblefoot at the World's Fair, *279—Nino, *493—Old Rocket, 29—Our Polly, 342—Out of the Ordinary, 341—Paul Revere's First Ride, 217—Peddler Green's Help, *420—Peggy's Fourth of July Radishes, 277—Plucky Minnehaha, *276—Routed Campers, 491—Santa and Little Marion, 28—Teddy's Easter, 151—Teddy's Fourth of July Surprise, 399—The Children's Feast of Cherries, 444—The Cloverdale Rebellion, *396—The Fourth of July, 1676, 398—The Hadley Angel, *27—The Little White Sister, 277—The Old Farm, 217—The South Side Botany Club, 86—The True Bluebeard, 491—The Young Egg Gatherers, *84—What a Little Crowding Did, 219—What Two Little Boys Did, 31—Winnie and His Shadow, 445—World's Fair Garden Patch, 85.
T Tadpoles....342
Boys, For Farmers with....467
Bowlders, Burying....*321
Bricks and Brickmaking..*(3) 381
Bridges....*520
Brooder and its Management, 261; Inexpensive and Satisfactory *(7), 68
Budding Peach Trees....*433
Buildings, Economy in Good Farm....18
Buffalo, The Water....*(2) 15
Bushel Box, Convenient Picking and Storage....*331

C

Cattle, A Bovine Foster Mother, 427—Cattle Fastener, Self-Locking, *321—Gleanings from the Cow Stable, 152—Early Green Food for Dairy Cows, 473—Economy in Beef-Making 76—Feeding for Milk, 385—Feeding the Cows, 428—How Long to Milk Cows, 21—How to Dehorn, 291—Keeping Tuberculosis off the Farm, 359—Jersey Bull, Devotions Lad *(4), 475—Kicking Cows, 286—Milking in Darkened Stables, 431—Polled Durham, *379—Preventing Sickness in the Dairy, 360—Profitable Dairy Cow, 256—Prospects of Raising for the Small Farmer, 315—Pure-bred Stock in Australia *(2), 65—Roots versus Silage for Cows *(2), 482—Southern Fever, 353—Swiss *(2), 257—Taming the Head of the Herd, *321—The General Purpose Cow, 338—Two Champion Steers *(2), 203—Galloway Cattle for the South, 380.
Cellar, New Plan for Digging *(3), 320; Stairs Outside, *425.
Cereals, Improvement of....58
Cistern, Clean the, 200; Constructing a Symmetrical, *425; How to Make a Self-Cleaning, *376.
Chores Around the House....425
Church Shed....64
Clover in Louisiana, Japanese, 47; Seed, Sowing, 326.
Corn, Conditions Concerning *(3), 198; be Cultivated, How Late Should, 314; Ground, How to Mark, *266; Late Cultivation of, 370; Plant as Food, Utilizing the, 251; Shocking Field, *471.
Cotton Culture, New....180
Cramp, Milker's....454
Crops, Late Planted....252
Cropping, Double....200

D

Dairy, A Four-Cow, 203—Aseptic Milk Utensils, 380—Butter-Making in Cold Weather, 16—Drift of Dairy Progress, 418—Difference Between the Babcock Test and the Churn, 372—Exhaustiveness of Churning Cream, 426—Fancy American Cheese, 45—Gathering Butter, 318—Girls and Women as Butter-Makers, 427—Hints, 426—How to Make Silk-Edged Butter, 256—How to Use the Babcock Milk Test, 132—Keeping Milk in the Cellar, 427—Knowledge in, 198—Packing Butter in Small Dairies, 378—Paying for Quality of Milk, 66—Pith, 318—Preserving the Grain of Butter, 204—Some Pointers, 16—Some Recent Discoveries, 59—The Souring of Cream, 474—Testing Composite Samples of Milk, 204—Variation in Milk and Butter production, 251.
Donkey as a Pet....*475
Drain, Combined Sink and Slop....377
Draining, Successful Swamp..12
Drains, The Outlet to Under, 194; The Value of Surface *(3), 267.
Drill for Farm Wells, Homemade....*(2) 266

E

Entomologist, The New United States....412
Evaporator, A Homemade Fruit....*(2) 386
Expenses, Avoidable....262
Exposition, Glimpses of the Midwinter Columbian....236

F

Fairs, How to Exhibit at Agricultural....467
Farm, Buying a, 418; and Garden Experiences, 386; Improving a Run-Down, 467; Philosophy, 420;
Philosophy, Every-day, 70; Picked up About the, 134; Pointers, 434.
Farming in Foreign Lands, 38, 40, 94, 156, 226, 304, 350, 500; Fancy, 104; Profit and Loss in, 3, 384.
Farms and Good Farmers....3
Fences, Aid in Building *(2), 62; Cheap, Effective and Durable *(2), 377; Clear the Rows, 129; Neat, 13; Portable *(2), 9, Repairing, 194, Setting Posts, 332; Uses of Barbed Wire, 322.
Feeding, Extra Fall....475
Fertilizers, Commercial, 419—Hay Mulch, 315—Potash Fertilizer Needed, 169—Sheep Guano, 476
Fish Ponds, Private....70
Flies and Contagion....299
Flowers, Box of Arbutus, 208—Cineraria and Calceolarias for the Window, *205—Dahlia for Summer and Fall Blooming, 138—Forcing the Easter Lily, 432—Heliotropes, 332—Madam Crozy Canna, 268—New Seedling Carnations, *137—Summer Care of Calla, 328—Sweet Peas in Abundance, 296—Window Boxes for, *331—Wistarias, *387.
Flower Garden, July in the, 388; Lessons from my, 76.
France, A Model French Farm, 339
Fruit, A Convenience in Fruit Gathering, *433—A Dozen Good Winter Apples, 134—Apricot Culture, 41—Blackberries for Home Use and Market, 171—Cape Cod Cranberries *(2), 373—Cost of Raising Berries, 44—Cultivation and Care of the Fruit Garden, 252—Cultivation of Apple Orchards, 328—Currants and Gooseberries, 268—Deterioration of, 316—Eldorado Blackberry, *471—Fruits, Flowers and Honey, 326—Fortune in Blackberries, *329—Garden, Starting a, *140, Growing in New Mexico, *71; House for Storing *(2), 9—It Pays to Thin Fruit, 371—Keeping Dried 49—Layering Black Raspberries, 384—Lemon Culture *(2), 327—Midsummer Among Small, 428—More New Strawberries* (2), 296—Mulberries for the Home Garden, 207—New Strawberries *(2), 73—New, Worthy of Trial, 208—Pear Culture in Texas, 287—Plant More Grapevines, 253—Planting Raspberries, 384; Planting Strawberries, 264—Preparing Plums for Market, *387—Quinces and Quince Culture, *17—Raising Figs from Seed *(6), 69—Raspberry Notes, 374—Renewing Old Strawberry Beds, 374—Strawberries and Weeds, 328—Strawberry Culture in Narrow Beds, 208—the Ideal Peach Orchard, 254—The Influence of Locality on Grape Culture, 136—The Timbrell Strawberry, 387.
Fungus Diseases—Fungi Upon Weeds—Enemies and Friends, 60—Black Knot on Plums, 238—Club-Root of Cabbage and its Allies *(5), 13—Curl of the Peach, 71—Fungicides and Seed Germination, 174—Potato Scab, its Causes and Remedy, 123—Rot of Stone Fruits, 316.

G

Garden Hints, Timely Farm and....243
Gardens, Tropical Botanical *(2) 2
Gates, Cheap and Effective Flood, *13; Improving Farm, *127; Three Good Fastening *(3), 424.
Grape house....*(3) 325
Grass for the South....136
Greenhouses, Cement Benches for Sub-Irrigation....*471
Grindstone Frame, Solid....* 13

H

Halter, Easily Made, *13; for Horses that Roll, 378.
Harness, Clean Collars, 197; for Farm Horses, Care of, 196.
Harrow, Uses of the Smoothing....322
Hay Field, In the....350
Haystacks....*(3) 330
Haystacks, Topping....*(2) 424
Hillsides in Sod, Keeping....316
Home, An Ideal Country....140
Horses, Care of Horses' Mouths, 428—Care of the Weanling's Feet, 197—Directum *(2), 58—Ladas, *421—Lena Hill, *197—Money in Harness Horses, *261—Points for Rejection, 231—Oats for, 70—Raising Colts for Sale, 141—Salt for Horses, 72—Shire Horses at Home, *333—Slow-Feeding Box for Voracious, *63—The Farm Horse at Work 196—Typical American Trotter, *129—Whoa! Should Mean Stop, 48—Winter Protection of, 55.
House, Banking up for Winter, 18; Convenient Garden, *206.

HOUSEHOLD:

A Accounts, Keeping Domestic....210
Amusement, A New....436
Anniversaries, Remember the....484
Apron, Clothespin, *212; Cooking, 439; Quaint Fashions in, 395.
Attic, Reclaiming an *(2)...485
B Baby, Ribbon Guard for...* 79
Babies, Reform for, 390; Taking Care of the, 78.
Bag, Darning, 273; Fancy Work *(2), 487; Receptacle for Dust Cloth, *438.
Ball for Baby, Jingle....* 82
Basket, Novel Pin, *392; Spool, 391—Baskets and Urns, Novel Hanging *(6), 272.
Bathe, How to....24
Bathroom, For the....391
Bench, A Well-Arranged Water....*274
Best, Second....390
Bibs, Baby's....*391, 488
Birds, European Goldfinch, 271
Blouse, Work-a-day....*213
Book, Artistic Shopping....*337
Booklet, A Homemade....*438
Box for Bread and Cake, *440; Shoe, Made of Denim, *212.
Boys, How Some are Housed, *24; Keeping at Home, 26.
Bread-Board with Gauge..* 82
Brush, A Novel Clothes....*273
Buns, Hot-Cross....145
C Cabinet for Bric-a-Brac, Homemade....337
Carpets, Artistic Rag....*338
Case, Japanese Glove, *214; Sensible Needle-Book, *272.
Chair, An Elizabethan, *486; Homemade Rustic, *73; Improved High, *25; Making a Writing *(2), 82.
Chambers, Suggestions for Furnishing....22
Chamois and Gold, Harmonies in....*(6) 213
Chest, Improved Moth-Proof....*274
Children, Little Ones at the Table, 270—Tell Them Why, 78
Clean, Just Simply....144
Closet, A Bric-a-Brac, *274; Improving a, *145; Ventilated, *438.
Coat, A Little Girl's....*(2) 25
Comforts, Fireside....* 23
Corn, Danger in Unbulted....346
Cover, A Unique Table, *214; Magazine, *273; Woodbine Table, 273.
Couch, A Folding....*438
Counter, The Home....53
Cupboard, Ventilating a...* 81
Cushion, A Charmed *(2), 87; A Pretty Toilet *(2), 337; Columbian, 337; for Chair Seat, *81; Hat Pin *(2), 391.
D Daisy Pattern....*214
Declamation, Selecting....306
Decoration, Winter....486
Denim, Possibilities of....489
Doily, Crocheted....*(3) 271
Doilies, Hairpin....*(2) 25
Draperies, New Window....86
Dress, A Dainty Little, *81; A Pretty Little, *214; A Simple Baby, *486—Baby's Best Gown, 337—May Queen, 274—Pretty Model for any Material, *336.
E Easter Offerings, Pretty *(8), 143
Economies, Small....436
Edging, Pretty Silk....*145
Eloquence, The Power of...392
Embroidery, Pretty Outline Patterns, 32, 79; Rococo, *336; Some Uses of Homemade (3), 23
Eyes, For Tired....142
F Fairs, Preparing Pantry Stores for....488
Fans, Feather....*(2) 440
Farm Life, The Beautiful in 142
Fashions, 83, 147, 215, 275, 339, 395, 441, 489: in Furs, 26.
Fire Kindling....484
Flies, Ridding a Room of..*274
Floors, Treatment of....436
Flowers, Morning Glories for the Window, 272; To Preserve, 142.
Flowerpots, Novel....*391
Food Preservation....437
Foot-Puff, Lace and Satin, *485
Frame, Double Photograph, *487; Homemade Picture, 145—New Way of Mounting Photographs, *393.
G Games for Evening Entertainments....270
Gauging....*(2) 271
Grapes, Good Use for Wild, 487
Grasses, June....336
Guard, An Umbrella or Parasol *(2), 487; Baby's Carriage, *440.
Guests, For the Coming....*272
H Halls, Reforming an Entry, 339
Handicraft, Mexican and Indian....334
Hat, Baby's Sun....*(3) 212
Hat-Rack, Pretty Rustic...*391
Holder, Newspaper....*212
Home, A Happy....275
Hood and Cape, Child's Combination....25
Horns, Two Uses for....*(2) 82
House, An Artistic Summer, *146; Cleaning Notes, 270.
Housekeepers, For Young...439
I Ice Chest....*272
Insects, To Get Rid of Roaches....24
K Kitchen, Electricity in the, *488; One Woman's, *146; Ruts in the, 26; Utensils, Mending, 437.
L Lace, Baby Point, *488; Braids, Knitted *(2), 393; Crocheted, *392; Handsome Crocheted, *335; Lattice, *486; Pansy Pattern, *437; Pattern, *211; Work, Honiton *(2), 336.
Lamp Shade, A Dainty....*273
Lamps, Care of....215
Lapboard, Homemade....338
Laundry Suggestions, Practical....210
M Manners, Children's Table..436
Mantel, Treatment for a...*485
Mats, Table....*439
Matches, Abuse of....25
Match Holder....* 82
Measure, A Ribbon Yard *(2) 146
Men as Household Helpers, 142
Milk Room Device....* 80
Millinery, Home....393
Money-Making for Girls, 336, 390
Mothers, A Word to, 22; Education for, 142.
Moths, To Prevent Damage by to Clothes....210
N Newspaper Pocket....*439
O Oilcloth, Care of, 24; Uses of, 484
Ottoman, An Inexpensive..* 79
P Painting on Fungus....*437
Parents, A Word to....78
Parlor, The Farmhouse....*393
Party, A Novel Doll, 145, An Omelet, 23.
Pianos, Arrangement of Upright....* 80
Piazza, An Easily Made, *439; Colors, 212.
Pictures, 210; A Pretty Snap-Shot, *439.
Pillow, Autograph Sofa, *145; for Sofa in Blue and Rose, *438; Slip for Sofa, *438.
Photographer, Amateur....*306
Pocket, Handkerchief, *81; Ribbon, *486.
Politeness at Home....334
Portieres....*335
Prevention, Ounces of....144
Protector, A Lung....439
R Rack, Easel and Picture, *274; Improved Umbrella, *212.
Recipes, 147, 215, 295, 339, 395, 441, 489.
Repairs, A Shelf for....147
Remodeling, *(2), 143; Cottage Chambers *(3), 211; Old Dresses—Renovating Done Here, 334.
Rheumatism, The Housework Cure....484
Room, The Invalid's....22
Rug, Homemade....437
S St Valentine's Day....*(3) 79
Salads, Some Winter....83
Sandbank for Children....*394
Scarf for Neck....*336
Screen, Combined Shelf and Window....*274
Sew, Teaching Girls to....26
Sideboard, A Corner....*213
Sink, Improving a Kitchen, *145
Shade, A Banner Lamp....*487
Shams....270
Shopping, When You go....390
Social, Crayon....24
Sociable, A Peanut....22

Soup Worth Trying.....440
Souvenirs, A Book of Summer, 395; Birthday, *438.
Spare-Hand Ribbon ..... * 82
Splasher, From a Reed.....* 81
Spread for Baby's Crib.....440
Stairway, A Reformed.....*212
Stand, An Invalid's *(2), 146; Flax Seed Plant, *80.
Steps, Those Wicked..... 82
Stoves and Pipe During Summer, Care of, 210: Wooden Legs for *(2), 25.
S'prises.....338
T Table, A Convenient, *438: A Stamp, 335; An Elizabethan, *486; for an Invalid, *485; Remodeling a Kitchen, *80.
Tablet, Lap.....*392
Trays for the Toilet Table *(3) 392
Trunk Cover, A Pretty. *80; The Unlovely, 80.
W Waist for Evening.....*393
Whalebones, Facts About... 81
Wife The Second.....484
Window Garden, An Outdoor 336
Women Can do, What.....436
Woodwork, Decoration for.....*(2) 440
Wrapper, Little Girl's, *392; for Mothers, Night, *487.
House Plans, Convenient Rural Cottage at Small Cost *(4), 431—Cottage Costing $1500 *(3), 77—Remodeled Log House *(2), 259—Stone Cottages *(4), 375.
Houses on Farms, Tenant.....375
Hungary, Farming in.....*(2) 74

I

Incubators and Brooders, Management of, 10; Degree of Heat in, 51; Moisture Needed in, 202; Where to Run, 124.
India, On the Mountains in.....303
Irrigation for Forcing Houses, Sub, 137; in Kern County, California *(2), 193.
Insects, Chinch Bug Pest, 478—Grain Insects and the Remedy Against them *(3), 139 — The Sheep Gadfly, 388: Trapping the Corn Root-Worm, 191.

J

Japan, College of Agriculture *(2) 314
Japanese Gardening with Dwarfed Trees.....*(2) 434

L

Lane, Farm.....424
Liberty Pole, Raising a....*(2) 376

M

Markets for Garden Products, 12; Profits in Home, 70.
Meadows and Pastures.....468
Meadow Land, Rolling.....194
Measures for the Farm, Home-made.....* 9
Michigan, Season in.....360

N

NEAR AND FAR:
A Africa, Outlook in South....153
Allegany County, Progressive.....221
Arkansas, A Glimpse of, 33; Traveler, An, 88.
Australia, Agricultural Education in, 494; Agricultural Products of, 244; Farm Soils of, 446
B Bahamas, Agriculture in the *401
Bulgaria, Farms and Farming in, 88; Rural Customs in, 345.
C Canning Industry in Iowa..494
Cliff Dwellers, Agriculture of the.....280
Colorado, Fruit Culture in, 220; Northern, 280.
Creamery in New England, 494
D Drouth in Europe, Lessons from the 88
E Eggs on the Texas Coast, Gathering.....495
England, Southwestern.....280
F Fair, After the.....88
Feeding by Clockwork 280
Florida, A Wonderful Wilderness.....400
France, Central, *33—French Shepherds on Stilts, *281—Summer Life in, 400.
Fruit Industry in California, *345; in the New Southwest, 152; in the Rocky Mountains, Irrigated, 281.
G Georgia Mountain Grocery, 33; Gold Mines, A Farm Among the, 494.
H Hemlock Bark Industry in Vermont.....401
Horses, San Antonio Horse Market..... 446
I Idaho, Rock Valley.....*281
Illinois, Founding a Home in.....220
Irrigation in Idaho, 280; in Queensland, Extensive, 32; in the San Luis Valley, 344.
K Kansas, The Sunflower State 446
M Maize was Named, Where.. 33
Marketing, The Rocky Mountain Burro.....446
Masts in Forests of Oregon, *153
Michigan, The Winter's Outlook in 88
Mississippi, Fertile Lands, 32: Rotation of Crops in, 153.
N Nebraska, Dairying in, 220; The Crops in, 152.
New Jersey, Good Roads in, 344
New Mexico, Ranch Farming in 344
Nitrate Beds in Columbia..344
North Carolina, Trucking and Live Stock Industry..220
North Dakota, Prosperous..152
O Ohio, Pure-Bred Live Stock in.....220
Ontario, The Outlook in.....400
P Pacific Coast, The Year's Crop on the 32
Pecans and Persimmons in Iowa..... 89
Plants, Century Plant at Kings River Graveyard, 281; Growth in Dry Climates, 345—Sagebrush of the Desert, 400.
Potato Growing in Maine...220
Puget Sound.....446
R Ranch, On the Trail of the Mountain 447
Roads, Native Concrete for Surfacing.....495
S Savage Islanders 446
Savage Island, Pacific.....*221
South Dakota, 494; From, 152
Swine Breeding in Indiana, 280
South, The New Agriculture in the.....153
Southwest, Fruit Growing in the.....494
Spraying Apples and Grapes 152
Suez Canal,.....* 89
T Texas, Horticulture in 89
Trees, Australian Forest, *447; Best Mulch for Newly-Planted, 221; Sawing Down Oregon, *495; Setting Out—As Others See Us, 152.
Tobacco, Tennessee.. 344
V Virginia Valley, A Fertile...220
W Washington and the Yakima Valley.....400
Weeds, Thistle in New Zealand, The California.....281
Wheat Farms in the Northwest, 88; Trade, India's, 32.
Wool Growing in the West..400
Normandy, Market Day in..... 43

O

Oats, Cleaning Seed.....171

P

Partridges, Chukor.....*265
Pastures, Arrangement of Fields and, 18—Pasture Springs, Keeping Pure.....*127
Piggery, A Model.....*(2) 377
Pineapple Fiber.....*133
Pine Woods, The Alabama.....*315
Plants, California Privet, *209—Cultivated Honey Producers, 318—Cultivation of Ginseng *(3), 469—Foliage Plants for Winter Decoration, 19—Lathyrus heterophyllos, *481 — Peppermint Culture, 432—Potting and Repotting Plants, 136—Room, Adding a Small *(2). 470; Quality in Strawberry, 138—Uncultivated Honey Producers, 6.
Plow-Point, Sharpening a Cast-Iron.....138
Pork and the By-Products, Curing..... 51
Potato Sorter, Serviceable, 470; Starch Industry, *477.
Poultry, A Vermin-Proof House, 324—Are White Fowls Tender? 382—Beginnings of Chicken Life, 124—Bone for Fowls, 202—Brown China Geese, *11—Care of Young Poultry, 202; Clean Food and Drink for, *199; Clean Water for, 125—Crate for Shipping live Fowls, *425—Dry-Goods Box Chicken Coop, *199—Educational Exhibition *(2), 125—Fattening the Chickens, 10—Feather-Eating Fowls, 48—Flavoring the, 199; Green Feed and Pure Air for, 10; House for, *62; Improving Farm, 124—Improving the Flock, 430—Jaundice in Fowls, 42—Keeping Accounts with, 11, 324—Keep the Chicks Growing, 265—Late Hatched Chicks, 380—Mating Barred Plymouth Rocks, 382—Mating Light Brahmas, 430—Movable Yard for Poultry, *199—Neat, 380—Pure and Cold Water for, 265—Purifying the Yards, 324—Practical Hints on Feeding Fowls, 322—Raising Turkeys in Virginia, 428—Red Shanghai to Buff Cochin, *67—Roup in Turkeys, 42—Seasonable Hints, 482—Sebastopol Geese, *201—Success with Chicks *(4), 381 — Secure Yards for Spring Chickens, 265—Sultan Breed of Fowls, 323—Testing Duck's Eggs for Hatching *(11), 126—The American Dominique, *429 — Winter Rations for, 67.
Pruning Trees and Shrubs, Thumb.....332

R

Rabbit Pen, A Pretty.....*(2), 198
Repairs, Spring.....200
Roads, Good..... 413
Russia, Famine Districts of..... 46
Rusk, Hon Jeremiah M..... 44
Rutabagas, Success with.....330
Rye, Top-Dressing for.....*(2) 472

S

Schoolhouse Grounds.....385

SCIENCE IN FARMING:
A Alfalfa for Prairie Regions, 498
Anthrax, Immunity from... 36
B Beet Seed, American Sugar, 286
C Cattle, Cotton Seed for Fattening Steers, 92—Fattening Steers, 36—Texas Fever, 248.
Corn, Cultivating Field, 450; Culture, American, 348 — for Fodder and Grain, The Ripeness of, 450; for Silage in Cool Climates, 498; on the Prairies, Field, 348.
D Dairy, Changes of Food and Weather in the, 92—Flavoring Butter by Bacteria, 348—Improved Milk Test, 36.
F Fertilizers for Cow Peas, 224—Green Manures for Nitrogen, 450.
Forests and Rainfall..... 92
Fruit, Blackberries and Raspberries, 348—Method of Training Grapes, 286 — Missouri Valley Grapes, 404—Northern Strawberries, 158—Raspberries and Blackberries, 36—Southern Strawberries, 92—in Indiana, Small, 224—The Apple Scab, 158—The Effect of Mulch on the Ripening of, 92.
Fungicides and Insecticides, Formulas for, 286; Experimenting with, 224.
Fungus Diseases, Anthracnose of Raspberries, 498 — Orange Rust of Raspberries and Blackberries, 224 — Pineapple Disease, 498—Potato Blight and Rot, Late 498—Potato Scab, 498
Remedies for Plant Diseases, 158 — Spraying for Potato Blight, 404.
H Hay, Alfalfa and Timothy, Wild..... 498
I Insects, Chinch-Bug Diseases, 404 — Cucumber Beetles, 158—The Bud Moth, 159 — The Squash Borer, 224.
Irrigation, Amount of Water Needed for, 450: During Drouths, 286; Early or Late, 286; in the Forcing House, Sub, 158; or Sub-Irrigation, Surface, 158.
M Milk, Stability of Fat in Sweet..... 158
Manure, The Production of, 36
Manuring for Prairie Soils, Green, 224; in Summer, 498.
P Plants, Electricity in..... 92
S Silage and Fodder, Digestibility of Corn, 36; from Broom Sedge, 450.
Sheep, Fattening Rations for Lambs.....286
Soiling During Drouths.....404
Soils, Rocky Mountain..... 36
Spraying Calendar, A. 224; for Rusts of Grain, 450; Orchards, 158.
Sugar Beet Seed, Testing... 92
Sugar Cane, Varieties of.....404
Swine, Feeding Wheat to Hogs, 450; Pasture for, 404.
T Trees, Winter Killing of.... 92
Truck Farming, Southern...286
V Vegetables, Cauliflowers, 404—Early Tomatoes, 348—Electric Light for Cauliflowers, 36—Tomatoes in Cold Climates, 404—Winter Cauliflowers, 92.
W Water, Chemicals in Irrigation.....348
Weeds, The Russian Thistle 158
Wheat, Seed, 224; The Parts of a Grain of, 450.
Seeds and Seeding, 60; Selecting, 327.
Sheep and Early Lambs, 256; and Goats from Africa, *319; Blanketing, 319—Breeding for Twin Lambs, 476—Crisis in Sheep Husbandry, 228—Cross-Bred Lambs, 418—Device for Feeding, *470; Diversified Types of Merino, 319 — Flock of Shropshire, *388; Improvement on Wool, 137; Liver Fluke of, 262; Saxony in the United States, 422; Shelter for, 64 — Stomach Worms in Lambs, 70 — Underfeeding Ohio Sheep, 165; Summer Care of, 378
Short Furrows.....6, 60, 260, 374, 430
Shrubs, Beautiful Native.....433
Shrubbery.....264
Skunk Farming.....*(3) 263
Sluices, Modern *320
Soap Making on the Farm..... 49
Soiling, Corn Silage for..... 4
South, What the Yankee is Doing Down 47
Spraying for the Plum Curculio, 253; Fruit Trees, Object Lesson in, *253.
Spring or Well House.....*325
Stable, Convenient Village *(2), 258—Self-Cleaning Cow Stall *(2), 8—Temporary Shelter for Cattle, 16—Winter Dairy, 14.
Stack Frame for Curing Succulent Forage.....* 4
Stock, Feeding the Young, 473—Sell the Hard Keepers, 372—Stony Fields, Improving..... *478
Straw, Feeding Barley, 138; on the Farm, Value of, 322.
Stump, A Pine *(3), 317; Removing, 470.
Sugar Industry of Vermont, Maple.....*(2) 122
Swine, A Movable Pigpen, *481—Cheshire Hogs, *423—Fattening, 422—Fattening Pigs on Wheat, 286 — House for, *62—Marketing Hogs, 128—New Design for Pigsty *(3), 127—Our Small White, 128 — Pneumonia in Fattening Hogs, 69—Spring Pigs, 262—Profitable Hog Raising, 192.

T

Tanbark, Oak.....*(2) 258
Tanning Skins With the Fur on 171
Testing Soils by the color of the Plant Foliage ..... * 61
Tethering or Picketing Animals 426
Texas, Farming in.....*(2) 250
Timely Work.....382
Thoroughfares, Beautiful Public.....*269
Tobacco Culture in Tennessee..384
Tools, It Pays to Take Care of, 474; Train Children to Use, 63; Useful Weeding, 331.
Trap for the Cunning Fox.....*209
Trees, A Plea for Nut, 371; as Soil Improvers, 435; Deodar Cedar, *19—Elder Tree of Arizona, 385—New Double Flowering Peach, *331—Profitable Nut Growing *(3), 7; Transplanting Maple, 71.
Troughs for Several Fields, Water.....*(2) 258
Turpentine Products.....328

U

Utah, Farming in Salt Lake Valley.....*(4) 466

V

Vegetables, Beans and Peas, Device for Sorting and Cleaning *(3), 9—Cauliflower Culture in the South, 20—Celery Growing in the Cotton States, 268—Egg Plant Culture in the South, 134—New Potatoes from Seed Sets *(3), 255—Potato Raising Made Easy, 196—Radish Culture *(6), 207 — Raising Celery Plants Quickly, 205 — Tomatoes for Home Use, 269—Sticking Lima Beans, *206,
Vine Crops in Drills.....264

W

Wagons and Carriages, Care of, 72
Walks Free from Snow, 62; Two Serviceable *(2), 267.
Wash, A Chance to.....305
Water at the Roadside, Stagnant, 424; for Stock, 14; for Stock, Preserving the Natural Temperature, *63; Wire Cable for Carrying, *433.
Watering-Troughs, Roadside..* 63
Weeds, Field Sorrel, *21; Seasonable Kinung, 192.
Wells, Clean and Convenient Pump Platform, *13—Primitive South American Draw Well, *8
Winter, Getting Ready for 472
Wheat Buyer, England's Position as, 295; Changes in Methods of Growing, 6; Growing, Cost of, 122; Growing, The Capabilities of Land for, 468; Growing, The Future of, 354; Selecting Seed *(8), 479; The Future of, 250; Top-Dressing for Winter, 472.
Wheelbarrow, A Balanced, *9; Usefulness, *433.

Y

Yellowstone Valley.....

INDEX TO ILLUSTRATIONS IN VOLUME FIFTY-THREE.

A

ILLUSTRATIONS:
Asbury Park, A Beautiful Avenue at.....269

B

Bags, Device for Holding Grain 63
Barns at Palo Alto, Horse (2), 4-5—Matched Floors with Inserted Tongue, 425; Model Dairy (3), 199—Roofed Cattle Yard, 481.
Bees, Apiary Protected Against Spring Frosts (2), 195—Cellar for Bees, 73—Largest House Apiary (2), 135.
Birds, Pair of Chukor Partridges.....265
Boulders, Burying.....321

BOYS AND GIRLS:
B Birds, White-eyed Vireo....218
I Ice Crystals..... 30
H Holder. Clothespin Photograph..... 30
P Puzzle Fruit and Flower Acrostic, 279; Shakespearian, 87; U. S. Calendar, 309.
S Story, At Grandma's, 86—Could He Open It? 412—English People Enjoyed the Celebration, 396—Lize on the Raft, 148—Look, Here's Naught to Harm You! 27—Lucky Reads the Letter, 340—Minnehaha and Tuk-I-Tall, 276—Oh, See the Boots! 216—The Old Mill, 29—We Watched Them Through the Opening, 150—You Must Help Care for Him, 84.
Bricks and Brick Making....(3) 383
Bridges, Sewer Pipe with Masonry Embankment.....320
Buffaloes Bathing in the Nile, Water 14

C

Cable for Carrying Water.....433
Cattle, Australian Hereford Bull, Count Comely, 65—Australian Hereford Heifer, Venus 2d, 65—Champion Cross-Bred Steer, 203—Champion Devon Steer, 203—Devotion's Lad, the Famous Prize Winner, 473—Pet Jersey Bull, 321 — Prize Swiss Bull, Ruedi, 257—Typical Simmenthal Cow, 257 — Young Caribou in Search a Foster Mother, 427—Young Hamilton, the Grand Sweepstakes Winner, 379.
Cellar, Durable Stairs for, 425
Plan for (3), 320.
Cisterns, How to Build, 425; Self-cleaning, 376.
Corn, Good Corn Marker, 266; Ground (3), 198; Horse, 471.
Columbian Exposition, Japanese Gardens.....435

D

Dairy, Roots versus Silage.....483
Donkey as a Pet.....475
Drains, 92, 267—Safe Method of Disposing of Slops, 377.

F

Fences, Cheap, Effective and Durable (2), 377; Methods of Building Wire (2), 62—Portable Fence Panels, 9.
Flowers, Hybrid Cineraria, 205—Interior View of Plant Room (2), 420—New Double Flowering Peach, 331—Nicholson and Ada Byron Carnations, 137 — Pretty Window Box, 331—Wistarias, 387
France, A Model French Farm, 139
Fruits, Apple Trees Sprayed, 253—Apricot Orchard in Santa Clara Valley, Cal. 141—Cranberry Bog 37—Cranberry Harvest at Cape Cod, 368—Eldorado Blackberry, 471—Figs (6), 69 — Grape House (3), 325—Homemade Fruit Evaporator (2), 386—House for Storing Fruits (2), 9—Lemon Branch in Bearing, 327 — Meech's Prolific Quince, 17—New Mexican Fruit Garden, 71 — Pineapple Plantation at Lake Worth, Florida, 133—Strawberrie (2) 73—Strawberries, Mary and Henry Ward Beecher (2), 298—Table for Sorting Plums, 387—Timbrell Strawberry, 387—Unpruned and Judiciously Pruned Blackberries, 329
Fungus Diseases, Club Root (5), 131

G

Gardens of Tropical America, Botanical..... 1
Gates, Inexpensive Farm Water Gate, 13—Secure Sliding Gate, 127—Three Good Gate Fasteners (3), 423.
Goats, Boer.....319
Grindstone, Frame and Pitman for..... 13

H

Halter, Good Rope..... 13
Horses, Alantha, The Famous Prize Winner, 261—English Shire Stallion, Bury Victor Chief (1), 105), 333 — Feeding Box for Voracious Horses, 63—Ladas, Lord Roseberry's Famous Derby Winner, 421 — Lena Hill, the Great Texan Pacer, 197 — The Black Whirlwind, Directum, 57—Typical American Trotter, 129

HOUSEHOLD:
A Apron for Clothespins.....212
Arbor or Summer House....146
B Bag for Darning, 273—Dust-Cloth Holder, 438—Work (2), 213.
Ball for Baby, Jingle..... 82
Basket for Pins, 392; for Spools, 391.
Bathroom Convenience.....391
Bench for Water..... 274
Bibs, Baby's.....391
Blouse for Everyday, 214; Tasteful, 336.
Book for shopping 337
Booklet, Homemade, 438;
Needle, 213.
Box for Bread and Cake, 440;
Ornamental Plant, 440.
Bread-Cutting Contrivance, 82
Brush for Clothes.....273
C Card for Easter.....144
Carpets, Designs for Rag....338
Case for Books, 143; for Gloves and Handkerchiefs, 214; for

Needles (2), 273; for Needle Work (2), 213; for Postage Stamps, 144; for Postal Cards, 143; Serviceable Sofa Pillow, 438.
Chair for Baby, 25; Homemade Rustic, 79; with Table Attachment (2), 82.
Chest, Convenient Moth-....274
Closet, 145; for Bric-a-Brac, 274; Ventilated, 438.
Coats For Little Girls.....(2) 25
Covers, Bolster, 23; for Table, 336; for Table with Chestnut Burr Design, 214; for Trunk, 89; Magazine, 273.
Cupboard for Kitchen, 146; Ventilating a, 81.
Couch, Folding.....438
Counter, Hone 23
Cushion, A Charmed (2), 81; Columbian, 337; for Chair Seat, 81; for Hat Pins (2), 391; Toilet (2), 337.
D Doilies.....(2), 25, 236, 271
Drapery for Window..... 23
Dress, Dainty Little, 81; for Baby, 337; for a Young Girl, 214; for the May Queen, 274.
E Embroidery, Cross-Stitch, 23—Daisy Pattern, 79 — Outline Pattern 79—Pretty Silk Edging, 145.
F Fans Made of Feathers, (2), 440
Flowerpot, Cocoanut Shell, 391
Frame, Picture 143; for Photograph, 393; King's Daughter, 143.
Fungus, Painted.....437
G Gauging .....(2) 271
Guard, Baby's, 79; for Baby Carriage, 440.
H Hat, Baby's Sun.....(2) 212
Holders..... 23
Holder for Matches..... 82
Hood with Cape..... 25
Horns for Ornaments.....(2) 82
L Labels for Milk Pans..... 81
Lace, Blossom Point, 335; Crocheted, 271, 392 — Knitted Braids, 393 — Pansy Pattern, 437—Pattern, 211.
Lamp Shade.....273
M Measure, Pretty Ribbon Yard ....(2) 146
O Ottoman, Inexpensive..... 79
P Pad for Writing.....393
Parlor, Old and New.....393
Penwiper.....213
Piano, Decoration for..... 89
Pillow, Autograph Collection, 145; Pretty Sofa, 438.
Plants, Cobaea Scandens.....439
Pocket for Handkerchief, 81; for Newspapers, 439; for Shoes, 212; Serviceable Paper, 212.
Portieres, Tasteful Arrangement of.....335
R Rack for Hats, 391—Umbrella, 212.
Refrigerator.....272
Rooms, Comfortable Guest Chamber, 272; for Boys, Sleeping, 24; in Attic, Remodeled, 211
S Sachet for a Birthday Present.....439
St Valentine's Flower Basket, 79; Pincushion, 79; Scroll, 79
Sandbank for Children.....394
Scarf for Neck.....336
Screen with Shelf for Window.....274
Sideboard.....213
Sink.....145
Sham for Pillow in Daisy Pattern..... 214
Spare Hand..... 82
Splasher and Wall Pocket .. 81
Spread, Dainty Satin Puff...440
Stairway, Reformed.....212
Stand for an Invalid (2), 146; for Umbrella, 440; Homemade Picture, 274; Novel Plant, 89.
Stove Legs .....(2) 25
T Table Center Piece for Easter, 144; Homemade Sewing, 438; Mats, 439; Improved Kitchen, 80
Toilet Board..... 144
Trap for Catching Flies.....274
Tray for Hairpins.....144
Trays for Toilet Table...(3) 392
V Veranda, An Inexpensive Summer.....439
U Urns and Baskets for Plants, 272
W Waist, Dressy.....393
Whalebones..... 81
Window Box, 272; Garden, 336
Wrapper for a Little Girl...392
House Plans, Remodeled Log House (2), 259 — Rural Cottage (3), 4, 77, 431 — Stone Cottage (3), 375.
Hungary Forest Scenes, 75; Peasants Cutting Staves, 74.

I
Insects, Grain Insects and the Remedies Against Them.....139
Irrigation Canal Constructed on a Hillside, 193; in Greenhouses, 471; System of Kern Co, Cal, 189

J
Japan, Agricultural College and Farm at Sapporo.....313

K
Kindergarten for Colts at Palo Alto..... 4

L
Ladder for Topping Haystacks, 424; Quadruple Step, 433.
Lemon Orchard in California...326
LITTLE FOLKS:
C Case, Picture.....343
P Puzzle, Cottage, 343; Farm, 343 —Six Days Shalt Thou Labor, 31
S Story, Little Olga's Heroism, 493—Won't Your Mother Comb Your Hair? 279.

M
Measures, A Strong Bushel Box, 331—Homemade Bushel, 9.

N
NEAR AND FAR:
C California, Cherry Gathering in the Napa Valley....345
F France, Landes Shepherds and Their Flocks.....281
G Goat and Attendant, French Pet..... 33
Graveyard, The King's River.....281
I Idaho, Glimpse of Rocky Valley.....281
N New South Wales, Semi-Tropical Vegetation.....447
S Savage Island, Natives Home on.....221
Sisal Field in Bahama.....401
Suez Canal, Showing Embarkation of Pilgrims to Mecca..... 89
T Trees, Giant Trees of Oregon, 495—Oregon Pine, Section of the Trunk, 153.

P
Plants, California Privet Hedge at Long Branch, 209—Ginseng(3), 469 —Lathyrus Heterophyllos, 481.
Plows, Drain Plow.....267
Poles, Liberty.....(2) 376
Poultry, Brown China Geese, 11—Chicken Coop, 199 — Crosses, Capons, Turkeys and Geese (2), 125 — High-bred Sultan Fowls, 323—House for Poultry and Pigs (2), 62—Improved Chicken Coop (4), 381—Inexpensive and Satisfactory Brooder (7), 68—Light Crate, 425—Red Shanghai and Modern Buff Cochin, 67—Testing Duck's Eggs for Hatching (11), 126—Trio of Sebastopol Geese, 201—Trough for Watering, 199—Typical Dominique Fowls. 429.

R
Rabbit Pen.....(2) 198

S
Sheep, Fat-tailed, 319—Flock of Shropshire Sheep at the Locusts, 389—Racks for Feeding Sheep, 470—Southdown - Hampshire First Prize Lambs, 417.
Skunks, The Home of.....263
Soil Analysis by the Color of Plant Foliage..... 61
Spraying Apple Trees.....253
Stable, Convenient Village (2), 258 —Floor of Self-Cleaning Stall, 8 —Section of Cow Stable, 8—Self-Locking Cattle Fasteners, 321.
Stacks for Curing Succulent Forage, 480; Hay (2), 330; How to Top (2), 424—Rail Floor for Hay-Stack, 330.
Starch Factory at Presque Isle Village, Maine, Potato....476, 477
States as Grouped by the Census.....191
Stump, A Pine..... ....(3) 317
Sugar, Glimpses of the Sugar Bush.....121
Swine, Great Prize-Winning Cheshire Boar, 423—House for Poultry and Pigs (2), 62—Model Piggery (2), 377—Movable Pigpen, 481—New Design for a Pigsty (3), 127.

T
Texas, Farm Life in.....249
Tools, Garden Tool and Storage House.....206
Traps for Foxes.....209
Trees, Arizona Elder, 385—Budding Peach Trees, 433—In Western New York, Chestnut, 7—Deodar Cedar at Dosoris, 19—Dwarfed Japanese Conifer, 434—Methods of Budding Hickories, 8—Oaks for Tanbark (2), 259 — on the Grounds of Cornell University, Hickory, 7.
Trough, Caldron Watering, 258; Iron Pipe Watering, 63—One Trough for Four Fields, 258—Spring House and Watering Trough, 127.

U
Utah Farming Scenes.....465

V
Vegetables, Improved Method of Setting Beanpoles, 206 — Bean-Sorting Apparatus, 9—Potatoes, A serviceable Sorter, 470—Potatoes from Seed Sets (3), 255—Radishes (6), 207.

W
Walks, Coal Ashes, 267; Serviceable Board, 267.
Weeds, Field Sorrel..... 21
Wells, Continuous Water Supply on the Farm, 63—Jars, Bits and Spring Pole for Well Drill (2), 268—Pump Platform, 13—South American Malacate, 8 — Spring or Well House, 325.
Wheat for Seed.....(6) 479, 480
Wheels, Egyptian Water Wheel Worked by a Water Buffalo.. 15
Wheelbarrow, Enlarging Usefulness of, 433; for Garden, 9.

STANDARD RURAL BOOKS,

SENT POSTPAID ON RECEIPT OF PRICE.

Harris's Talks on Manures.

By Joseph Harris, M. S., author of "Walks and Talks on the Farm," "Harris on the Pig," etc. Revised and enlarged by the author. A series of familiar and practical talks between the author and the deacon, the doctor, and other neighbors, on the whole subject of manures and fertilizers; including a chapter especially written for it by Sir John Bennet Lawes of Rothamsted, England. Cloth, 12mo. 1.75

Success in Market Gardening.

A vegetable growers' manual. By W. W. Rawson. Illustrated. Written by one of the most successful market gardeners in New England. 1.00

Onions; How to Raise them Profitably.

Being the Practical Details, from Selection of Seed and Preparation of Ground to Harvesting and Marketing the Crop, given very plainly by seventeen practical onion growers of long experience residing in different parts of the country. No more valuable work of its size was ever issued. Paper, 8vo. .20

Jones' Peanut Plant; Its Cultivation and Uses.

A practical book instructing the beginner how to raise good crops of Peanuts. By B. W. Jones, Surry Co., Va. Paper. .50

The Propagation of Plants.

By Andrew S. Fuller. Illustrated with numerous engravings. An eminently practical and useful work. Describing the process of hybridizing and crossing species and varieties, and also the many different modes by which cultivated plants may be propagated and multiplied. Cloth, 12mo. 1.50

Scientific Examination of Soils.

Comprising Select Methods of Mechanical and Chemical Analysis and Physical Investigation. Translated from the German of Dr. Felix Wahnschaffe, with additions by William T. Brant, editor of "Techno-Chemical Receipt Book." Illustrated. Cloth, 12mo. 1.50

Soils and Crops of the Farm.

By George E. Morrow, M. A., and Thomas F. Hunt. The methods of making available the plant-food in the soil are described in popular language. A short history of each of the farm crops is accompanied by a discussion of its culture. The useful discoveries of science are explained as applied in the most approved methods of culture. Illustrated. Cloth, 12mo. 1.00

Tobacco Culture: Full Practical Details.

This useful and valuable work contains full details of every process from the Selection and Propagation of the Seed and Soil to the Harvesting, Curing and Marketing the Crop, with illustrative engravings of the operations. The work was prepared by Fourteen Experienced Tobacco Growers, residing in different parts of the country. It also contains notes on the Tobacco Worm, with illustrations. 8vo. .25

The Soil of the Farm.

A Handbook of the Processes included in the management and Cultivation of the Soil. By John Scott and J. C. Morton. Cloth, 12mo. 1.00

Waring's Elements of Agriculture.

A Book for young Farmers. Contents: The Plant, the Soil, Manures, Mechanical Cultivation, Analysis. By Geo. E. Waring, Jr. Cloth, 12mo. 1.00

Plant Life on the Farm.

A Sketch of the Physiology of Life History of Plants; of the way in which they are affected by the circumstances under which they exist, and how they in turn react upon other living beings and upon natural forces. By M. T. Masters, M. D., F. C. S. 1.00

Manual of Agriculture.

For the School, the Farm and the Fireside. By Geo. B. Emerson and Charles L. Flint. A new Edition, revised by Dr. Chas. A. Goessman, Prof. of Chemistry, Massachusetts Agricultural College. Cloth, 12mo. 1.50

A B C of Agriculture.

A new and valuable work for all interested in farming and gardening. Cloth, 12mo. .50

Broom Corn and Brooms.

A Treatise on Raising Broom-Corn and Making Brooms on a Small or Large Scale. Illustrated. 12mo. Cloth, .50

Your Plants.

Plain and Practical Directions for the Treatment of Tender and Hardy Plants in the House and in the Garden. By James Sheehan. The work meets the wants of the amateur who grows a few plants in the window, or has a small flower garden. Paper covers. .40

Pedder's Land-Measurer for Farmers.

A convenient Pocket Companion, showing at once the contents of any piece of land, when its length and width are unknown, up to 1500 feet either way, with various other useful farm tables. Cloth, 18mo. .60

How to Make the Garden Pay.

By T. Greiner, one of the most experienced and skillful horticulturists in the country. About one-half of the volume is devoted to cultural directions of the various garden crops, how to grow them most easily and profitably, and descriptions of the leading varieties, accompanied by many illustrations. 2.00

Maple Sugar and Sugar-Bush.

By Prof. A. J. Cook. The name of the author is enough of itself to recommend any book to almost any people, but this one on Maple Sugar is written in Prof. Cook's happiest style. All the difficult points in regard to making the very best quality of Maple Syrup and Maple Sugar are very fully explained. All recent inventions in apparatus, and methods of making this delicious product of the farm are fully described. Profusely illustrated. .35

Silos, Ensilage, and Silage.

A practical Treatise on the Ensilage of Fodder corn Containing the most recent and authentic information on this important subject, by Manly Miles, M. D., F. R. M. S. Illustrated. Cloth, 12mo. .50

Flax Culture.

A very valuable work, containing full directions from selection of ground and seed to preparation and marketing of crop, as given by a number of experienced growers. 8vo. .30

Tomato Culture.

By J. W. Day, D. Cummins, and A. I. Root. In three parts. Part First—Tomato Culture in the South. Part Second—Tomato Culture, especially for Canning Factories. Part Third—Plant Growing for Market and High Pressure. Gardening in general. A Practical Book for those who work under either Glass or Cloth as a Protection from Frost. 135 pages, illustrated. Paper, 16mo. .35

Butter and Butter Making.

With the best Methods for Producing and Marketing it. By Willis F. Hazard, President of the Chadd's Ford Farmers' Club, author of the "Jersey, Alderney, and Guernsey Cows." Illustrated. 12mo. Paper. .25

Cauliflowers and How to Grow Them.

This work contains Plain, Practical and Explicit Directions in minute details for the Cultivation and Management of the Crop, from the sowing of the seeds to the marketing of the product. By Francis Brill. .20

Our Farm of Four Acres, and the Money we made by it.

This work is written by a lady, and while containing many useful suggestions it has the interest of a romance. Paper, 12mo. .30

Wheat Culture.

How to double the yield and increase the profits. By D. S. Curtiss, Washington, D. C. Importance of the Wheat Crop. Varieties Most Grown in the United States. Examples of Successful Wheat Culture. Illustrated. Paper covers. .30

Brill's Farm Gardening and Seed Growing.

A book useful for every farmer, gardener, and tiller of the soil. By Francis Brill. Cloth, 12mo. 1.00

Gregory on Fertilizers.

Where the Material comes from. Where to get them in the Cheapest Form. How to Compound Formulas, etc., etc. Paper, 12mo. .40

Fences, Gates and Bridges.

A much-needed and valuable work. The descriptions are abundantly illustrated. The book also contains a synopsis of the Fence Laws of the different States. Over 100 Engravings. Cloth, 12mo. 1.00

ORANGE JUDD COMPANY, 52 and 54 Lafayette Place, New York.